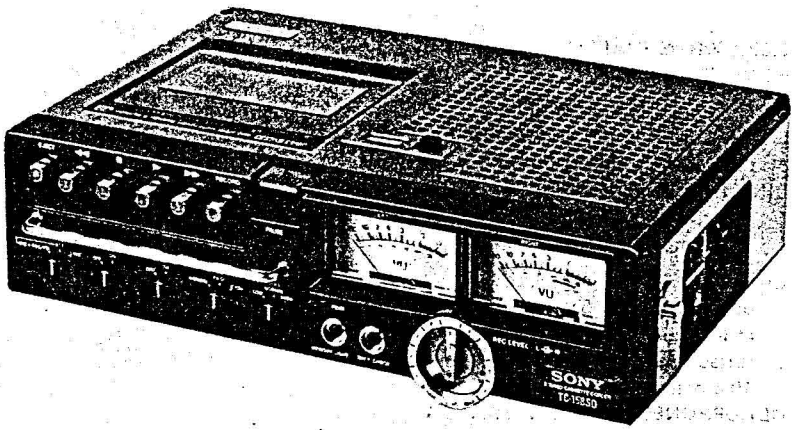
TC-158SD

US Model
Canadian Model
AEP Model
E Model



STEREO CASSETTE-CORDER

SPECIFICATIONS

Power Requirements:	AC 120V 60 Hz (US, Canadian model) AC 110, 120, 220 or 240V–50/60 Hz (AEP, E model) DC 6V four batteries of size D (IEC designation R20) Sony Rechargeable Battery Pack BP-8H (optional) 12V car battery with Sony Car Battery Cord DCC-129 (optional)
Power Consumption:	12W
Dimensions:	Approx. 350 (w) x 100 (h) x 240 (d) mm 13 3/4 (w) x 4 (h) x 9 3/8 (d) inches including projecting parts and controls
Weight:	Approx. 4.8 kg, 10 lb 9 oz with batteries
Fast Forward and Rewind Time:	Approx. 90 sec. (C-60, at 6V)
Recording System:	4-track 2-channel stereo
Speaker:	10 cm (4 inches) dia.
Power Output:	700 mW
Bias Frequency:	105 kHz
Signal-to-noise Ratio:	DOLBY NR OFF With Ferri-Chrome Cassette 59 dB at peak level (NAB) 57 dB (DIN, 1975 rev.) 49 dB (DIN, old) With chromium dioxide cassette 55 dB at peak level (NAB) DOLBY NR ON Improved by 5 dB at 1 kHz, 10 dB above 5 kHz
Total Harmonic Distortion:	1.3%

* 'Dolby' and the double-D symbol are the trade marks of Dolby Laboratory Inc. Noise reduction system manufactured under license from Dolby Laboratory Inc.
*0 dB = 0.775V

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

— Continued on page 2 —

CUATION OF VOLTAGE SELECTOR SETTING

When changing a voltage of the voltage selector, be sure to disconnect the ac power cord.

SONY®
SERVICE MANUAL

Frequency Response: DOLBY NR OFF
With Ferri-Chrome Cassette and chromium dioxide cassette
20—16,000 Hz (NAB)
30—15,000 Hz ± 3 dB (NAB)
30—15,000 Hz (DIN)
With regular cassette
20—14,000 Hz (NAB)
30—12,000 Hz (DIN)

Wow and Flutter: 0.08% WRMS (NAB)
±0.2% (DIN)

Inputs:
MIC (phone jack) 2
sensitivity 0.2 mV (-72 dB)
for a low-impedance microphone
LINE IN (phono jack) 2
sensitivity 0.06 V (-22 dB)
input impedance 100 k ohms

Outputs:
LINE OUT (phono jack) 2
output level 0.435 V (-5 dB)
at load impedance 100 k ohms
suitable load impedance more than 10 k ohms
HEADPHONES 1
suitable load impedance
8—32 ohms

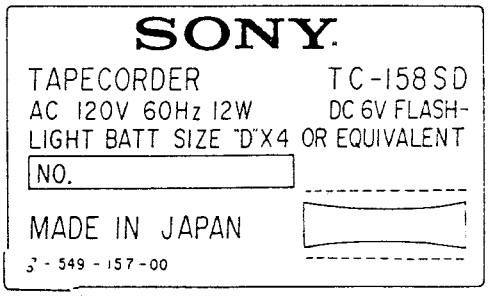
Record/playback Connector: (AEP, E model)
Input impedance less than 10 k ohms
Output impedance less than 10 k ohms

Battery Life:
Continuous recording time
Approx. 4.5 hours with Sony Long-life Batteries size D
Approx. 10 hours with Eveready Alkaline Batteries No. E95

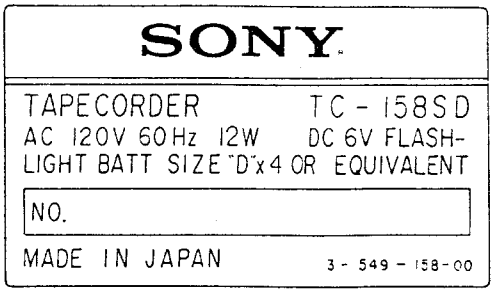
MODEL IDENTIFICATION

— Specification Label —

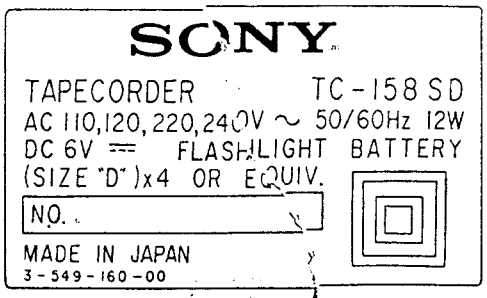
US model



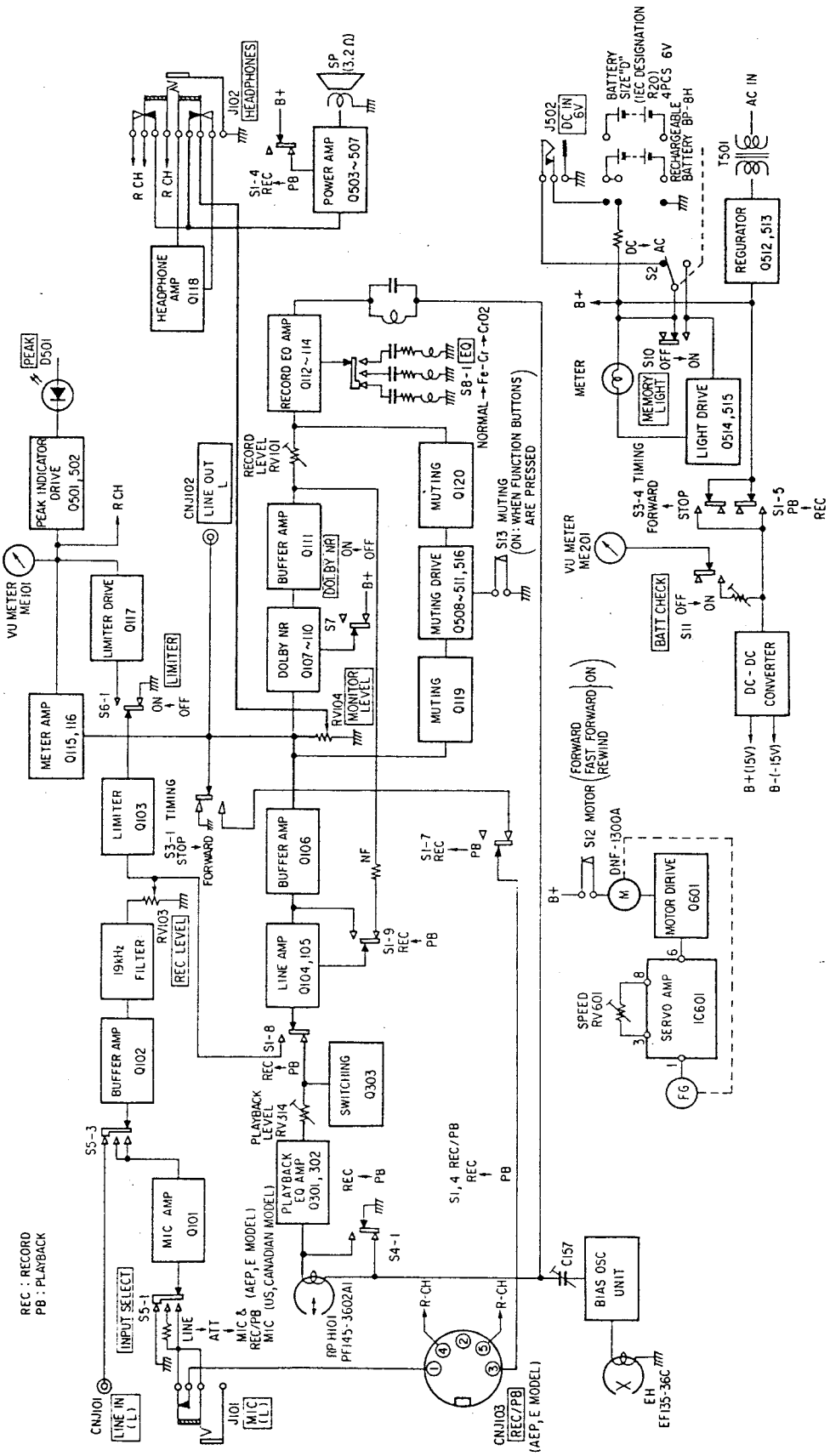
Canadian model



AEP, E model

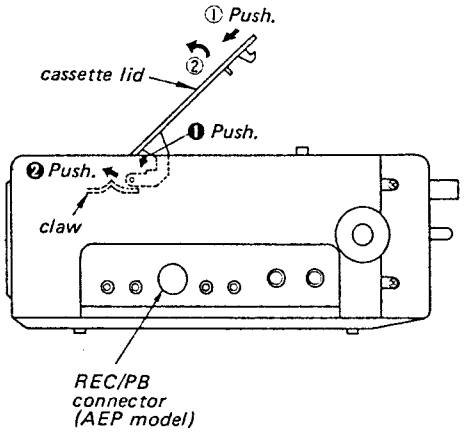


SECTION 1
BLOCK DIAGRAM

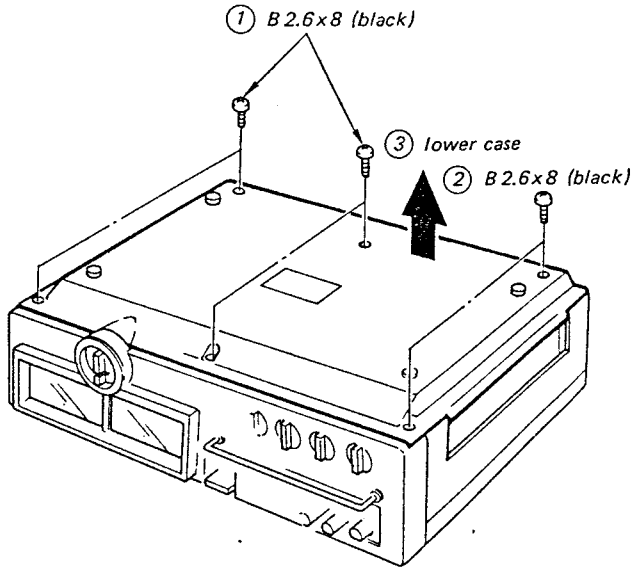


SECTION 2
DISASSEMBLY

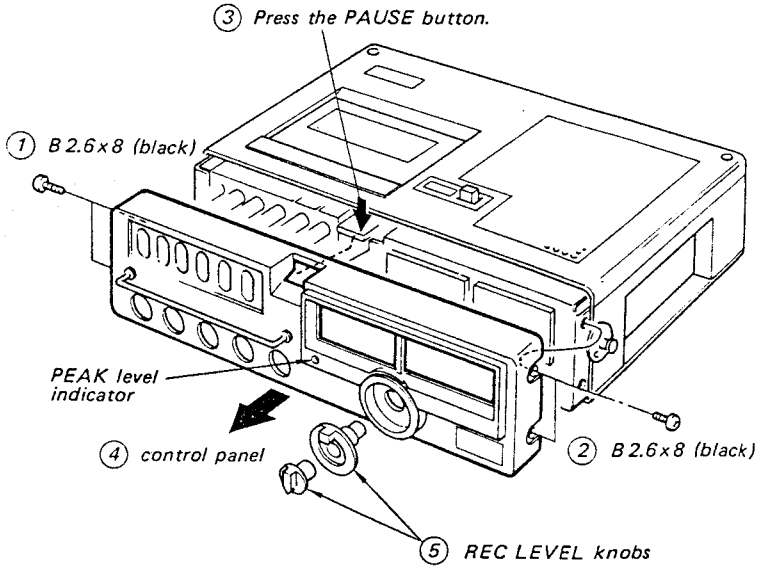
Cassette Lid Removal (①, ②) and Replacement (❶, ❷)



Lower Case Removal

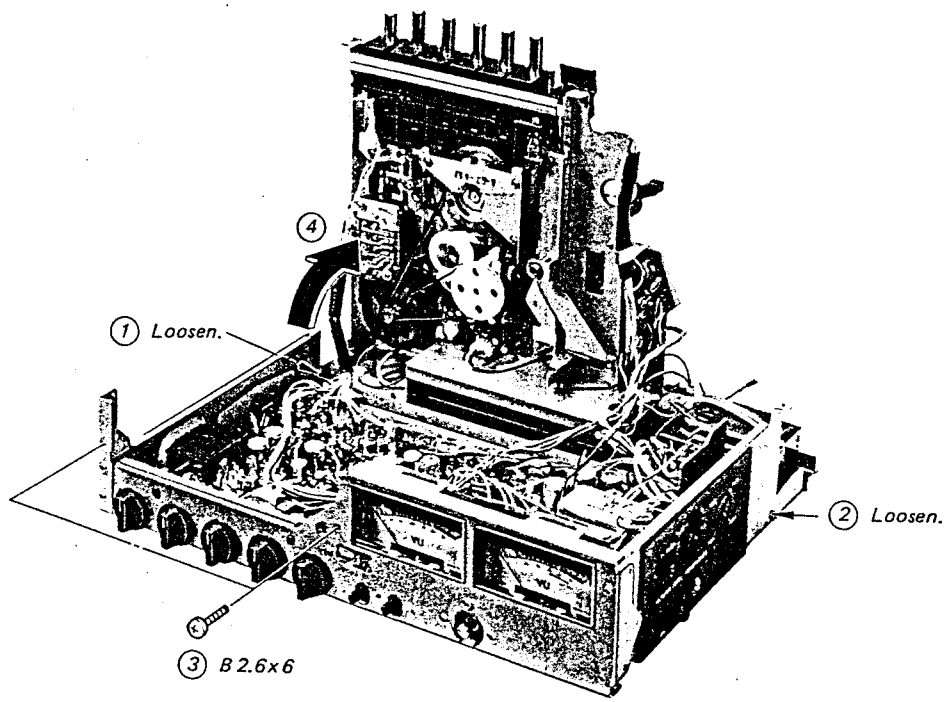


Control Panel Removal

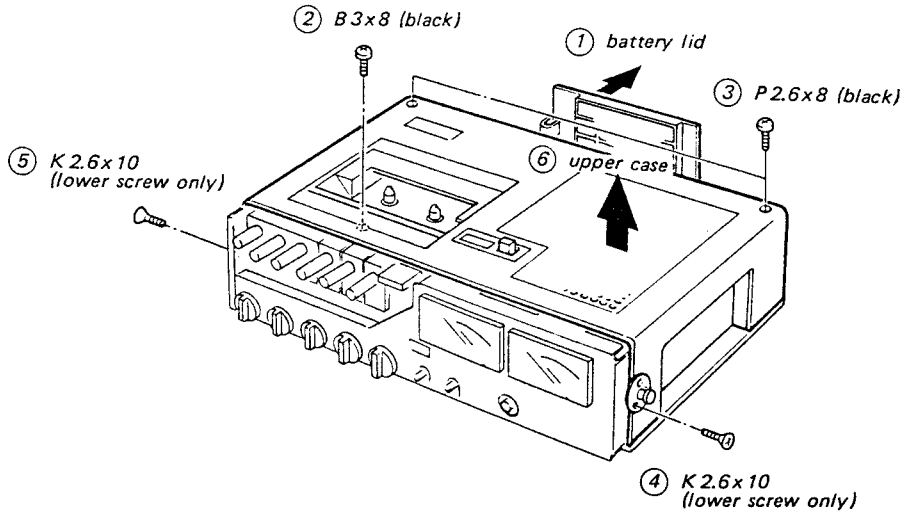


Note: *When replacing the control panel, take care of the PEAK level indicator position.*

Tape Recorder Mechanism Lifting



Upper Case Removal



SECTION 3
ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

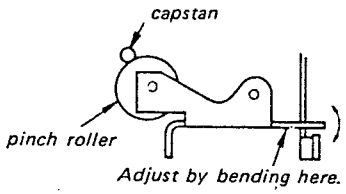
record/playback head	pinch roller
erase head	rubber belts
capstan	idlers

2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply a suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Pause Timing Adjustment

– Playback mode –

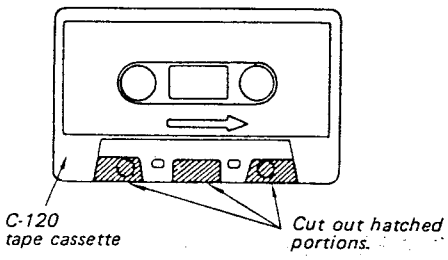
1. The take-up reel spindle flange should touch the tension pulley.
2. Slowly press PAUSE button. First, the pinch roller should release from the capstan. Next, the tension pulley should release from the take-up reel spindle flange. Under this condition, adjust the position of the pinch roller by bending the specified parts.



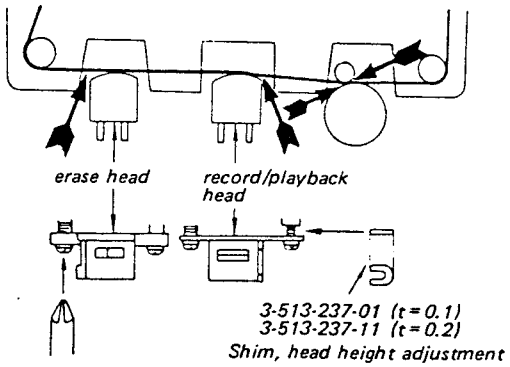
Head Height Adjustment

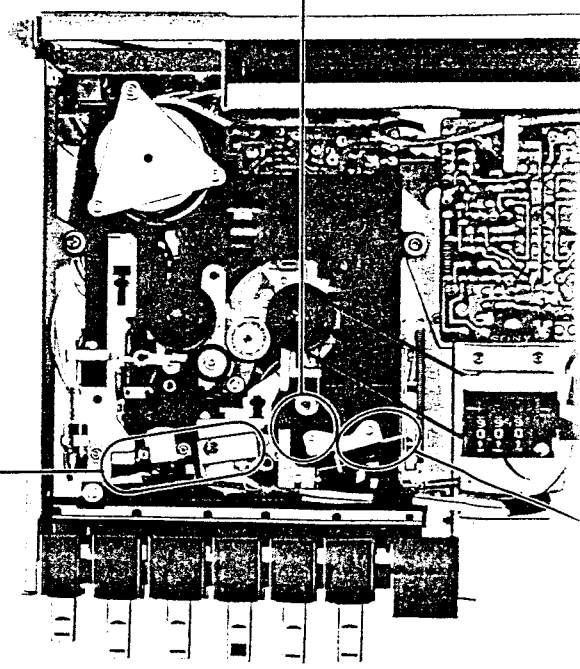
– Playback mode –

1. Make an adjustment cassette as shown below.



2. In playback mode and viewing from the top, adjust the head heights to eliminate tape curl and tape twist at arrowed portions.

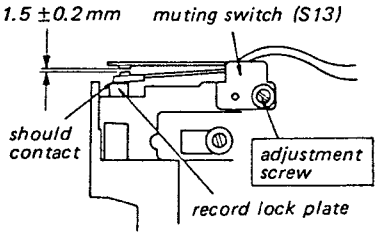




Muting Switch (S13) Position Adjustment

– Stop mode –

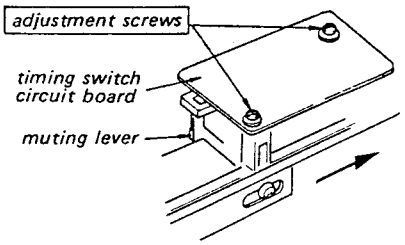
Loosen the adjustment screw and adjust the switch position so that the gap of the switch contacts becomes 1.5 ± 0.2 mm.



Timing Switch (S3) Position Adjustment

– Stop mode –

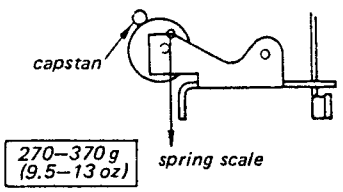
Loosen the adjustment screws and adjust the position of the timing switch circuit board in the arrowed direction so that the muting lever just starts to pull the slide of the switch.

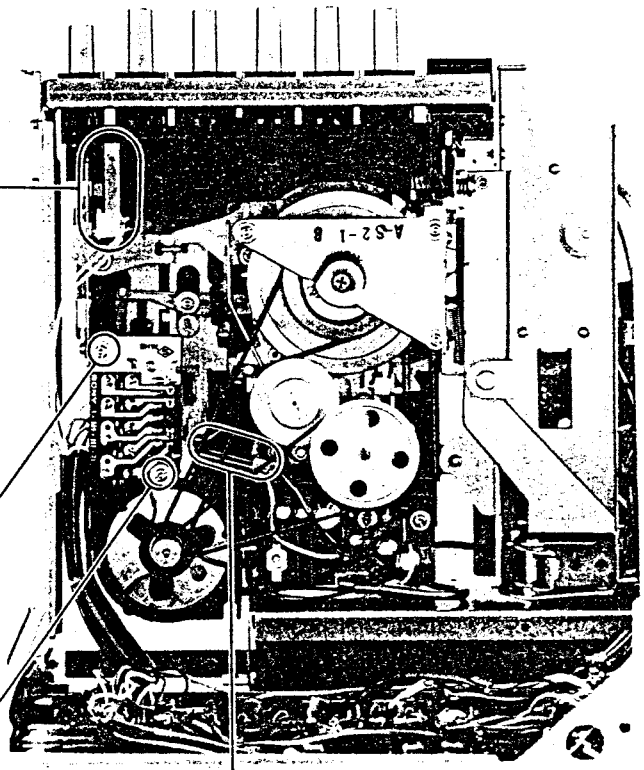


Pinch Roller Pressure Measurement

– Playback mode –

1. Pull the spring scale.
2. Slowly return the pinch roller and read the spring scale just when the pinch roller starts to rotate.

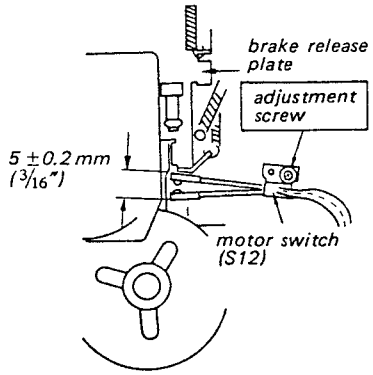




Motor Switch (S12) Position Adjustment

– Stop mode –

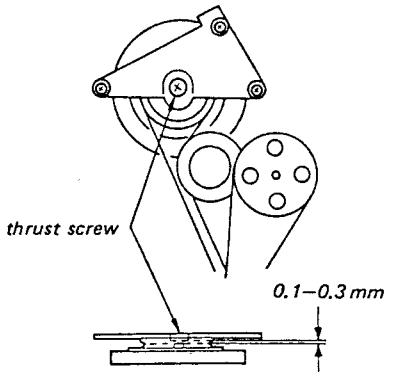
Loosen the adjustment screw and adjust the switch position as shown below.



Flywheel Thrust Play Adjustment

— Playback mode —

1. Carefully turn the thrust screw clockwise for no lengthwise play of the capstan shaft.
2. Turn the thrust screw counterclockwise 1/5 to 3/5 turns so that the lengthwise thrust play becomes 0.1–0.3 mm.



Reference Data:

Forward Torque

Torque meter	Meter reading
CQ-101A	30–60 g.cm (0.42–0.83 oz.inch)

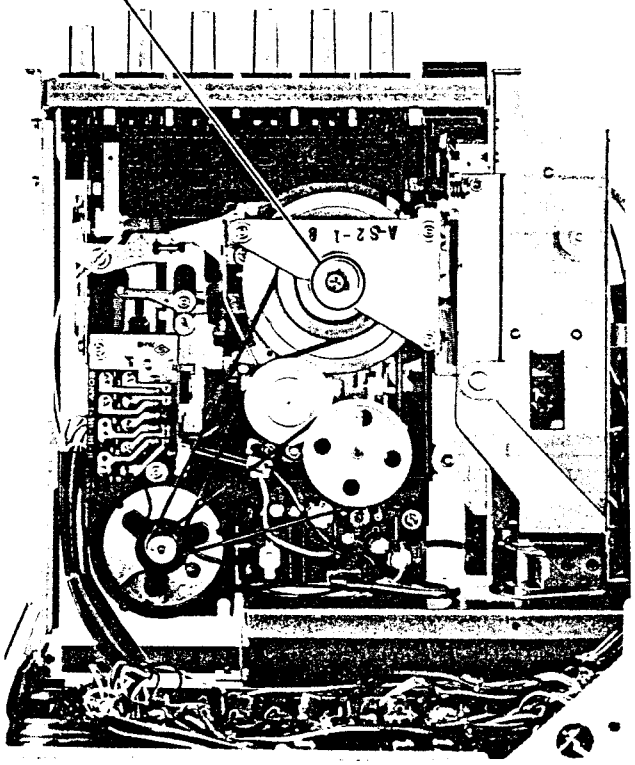
Deviation: less than 10 g.cm (0.14 oz.inch)

Back Tension Torque

Torque meter	Meter reading
CQ-102A	2–4 g.cm (0.028–0.055 oz.inch)

Fast Forward and Rewind Torque

Torque meter	Meter reading
CQ-201A	55–95 g.cm (0.77–1.32 oz.inch)



3-2. ELECTRICAL ADJUSTMENTS

Note: The adjustments should be performed in the order given in this service manual. The adjustments should be performed for both L-CH and R-CH.

Switches and control should be set as follows unless otherwise specified.

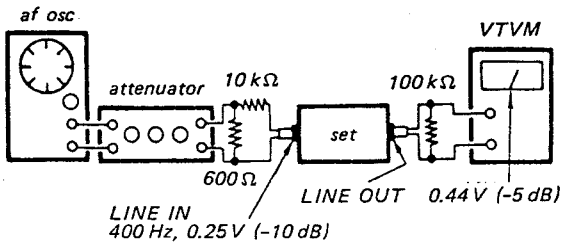
LIMITER switch:	OFF
DOLBY NR switch:	OFF
TAPE SELECT EQ switch:	NORMAL
TAPE SELECT BIAS switch:	NORMAL
MONITOR LEVEL control:	MAX

BIAS and EQ switch settings in accordance with tape used are as follows.

Blank tape	EQ switch	BIAS switch
CS-10	NORMAL	NORMAL
CS-20	CrO_2	HIGH
CS-30	Fe-Cr	NORMAL

Standard Record:

Set the REC LEVEL control for the specified output level.



Standard Input Level

	Source impedance	Input level
MIC	300 Ω	0.77 mV (-60 dB)
LINE IN	10 kΩ	0.25 V (-10 dB)
REC/PB	100 kΩ	31 mV (-28 dB)

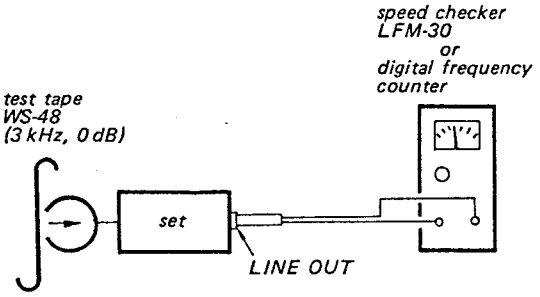
Standard Output Level

	Load impedance	Output level
LINE OUT	100 kΩ	0.44 V (-5 dB)
HEADPHONES	8 Ω	95 mV (-18 dB)
REC/PB	50 kΩ	0.44 V (-5 dB)

Tape Speed Adjustment

Procedure:

Mode: playback

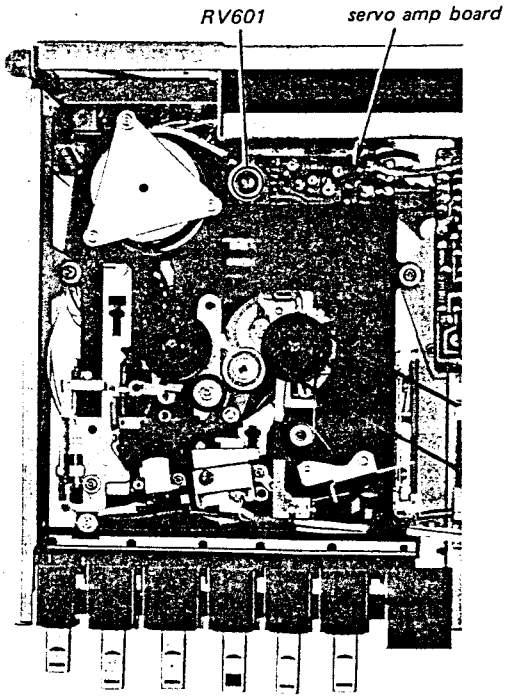


Specification:

Frequency at beginning and end of tape should be within;

Speed checker	Digital frequency counter
±0.3%	2,990 Hz–3,010 Hz

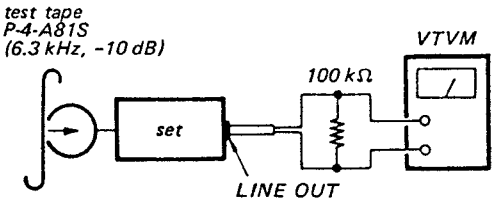
Adjustment Location:



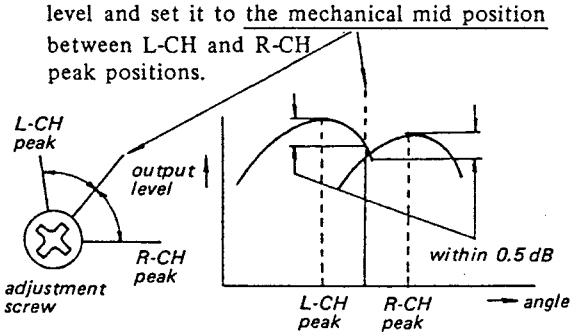
Record/playback Head Azimuth Adjustment

Procedure:

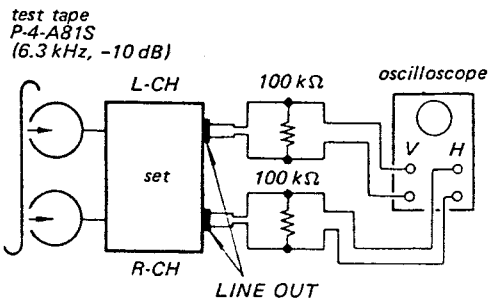
1. Mode: playback

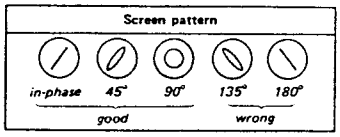


2. Turn the adjustment screw for the maximum level and set it to the mechanical mid position between L-CH and R-CH peak positions.

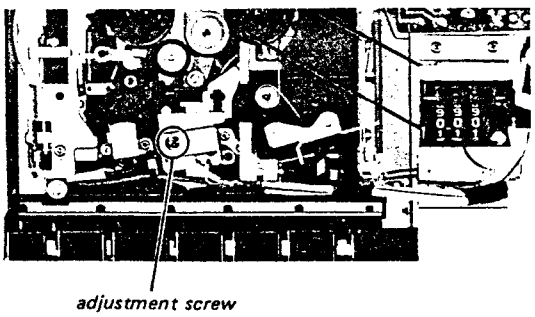


3. Mode: playback



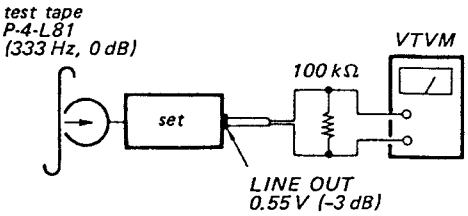


Adjustment Location:



Playback Level Adjustment

Procedure:

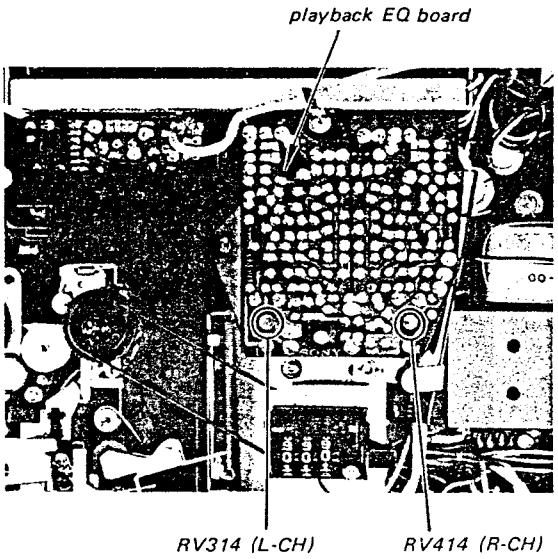


Specification:

LINE OUT level: 0.52 V–0.58 V
(–3 dB ± 0.5 dB)

Check that LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

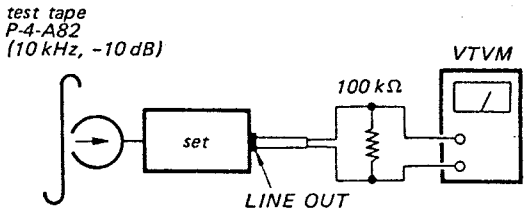
Adjustment Location:



Playback Equalizer Adjustment

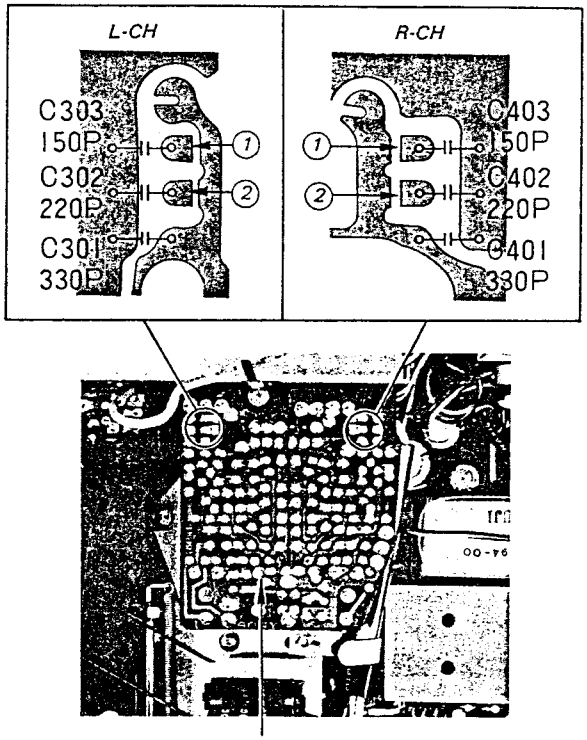
Procedure:

Mode: playback



Adjust the pattern connection for 206 mV–103 mV (-11.5 dB–-17.5 dB) reading on VTVM.

Adjustment Location:



Pattern connection	10 kHz VTVM reading
①	down
②	↕
① and ②	up

Reference Data:

Level difference between NORMAL and CrO_2 or Fe-Cr positions of TAPE SELECT switch; 4.5 dB ± 1 dB.

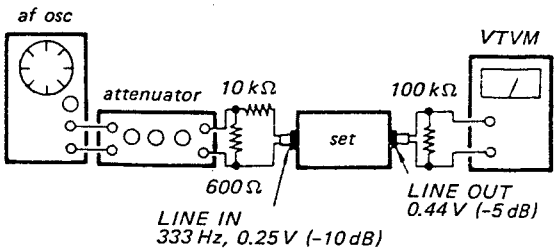
Level Meter Calibration

Setting:

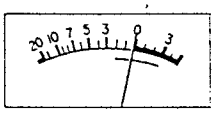
REC LEVEL control: standard record
(See page 10.)

Procedure:

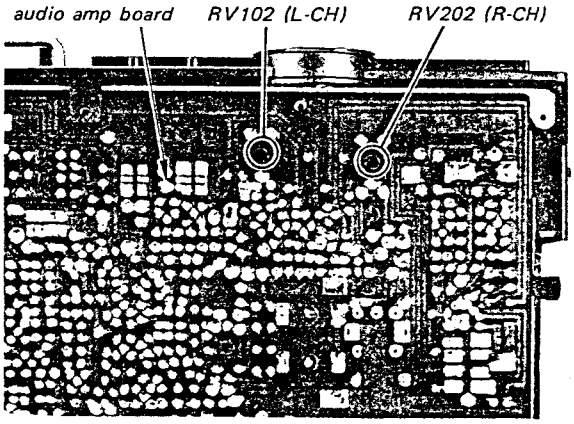
1. Mode: record



2.

Adjust	VU meter indication
RV102 (L-CH)	
RV202 (R-CH)	

Adjustment Location:



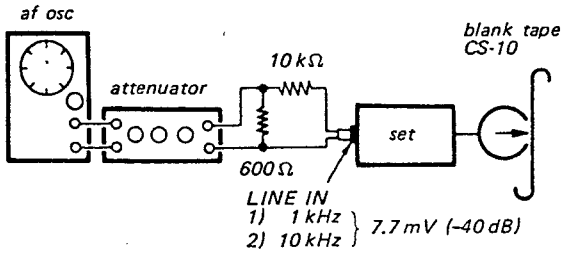
Record Bias Adjustment

Setting:

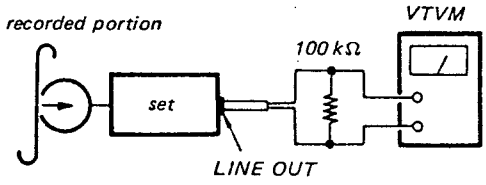
REC LEVEL control: standard record
(See page 10.)

Procedure:

1. Mode: record

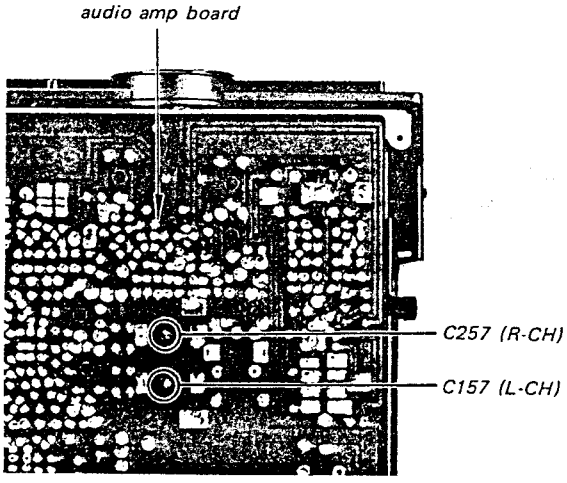


2. Mode: playback



3. Repeating above steps, adjust C157 (L-CH) and C257 (R-CH) to make 10 kHz and 1 kHz signal output levels equal.

Adjustment Location:



Note: When the 10 kHz level is low, turn C157 or C257 counterclockwise.

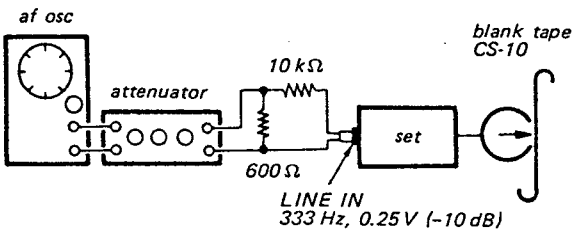
Record Level Adjustment

Setting:

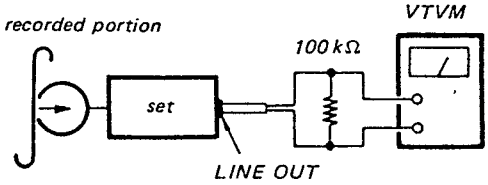
REC LEVEL control: standard record
(See page 10.)

Procedure:

1. Mode: record

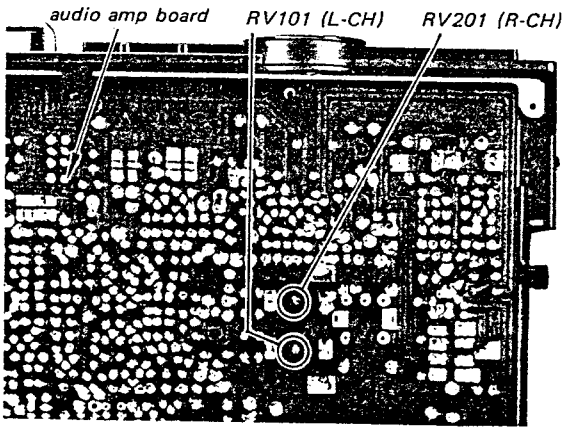


2. Mode: playback



3. Repeating above steps, adjust RV101 (L-CH) and RV201 (R-CH) for 0.44 V (-5 dB) reading on VTVM.

Adjustment Location:



4. Change the blank tape to CS-20 or CS30 and measure the LINE OUT level.

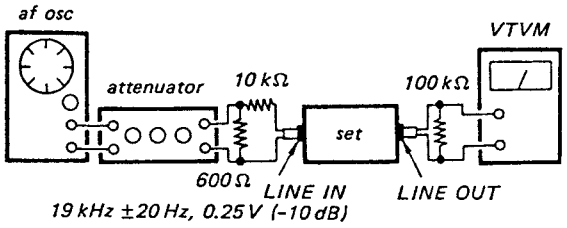
Blank tape	LINE OUT level
CS-10	0.44 V (-5 dB)
CS-20 CS-30	0.35 V–0.55 V (-7 dB–-3 dB)

19 kHz Filter Adjustment

Setting:

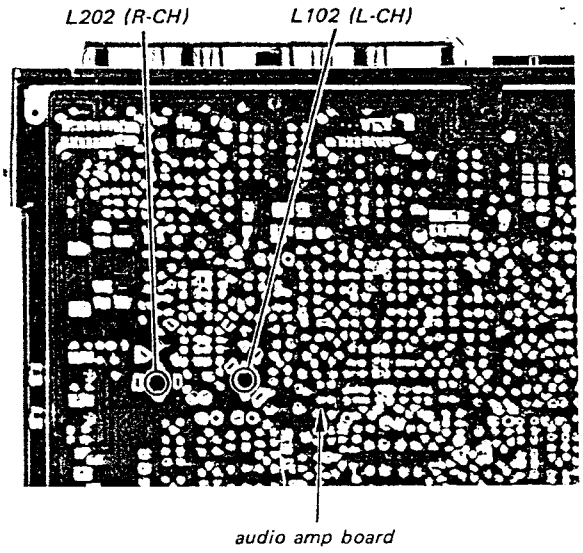
REC LEVEL control: standard record
(See page 10.)

Procedure:



Adjust L102 (L-CH) and L202 (R-CH) for a minimum reading on VTVM.

Adjustment Location:

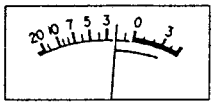


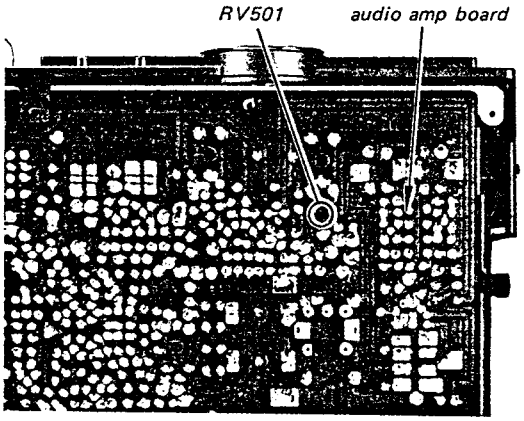
Battery Meter Calibration

Setting:

Power Supply Voltage: 4.4 V dc
BATT CHECK button: ON (Press.)
Mode: playback with no cassette loaded

Adjustment Location and Specification:

Adjust	Meter indication
RV501	



Reference Data:

MIC ATT attenuate level: 20 dB ± 2 dB
MEMORY LIGHT lighting time: about 10 seconds

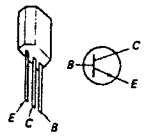
SECTION 4
DIAGRAMS

4-1. SEMICONDUCTORS

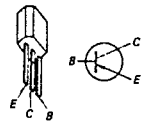
( ) : Replacement Semiconductors

Q101, 102, 104
Q111, 112, 201
Q202, 204, 211
Q212, 301, 302
Q401, 402
: 2SC632A

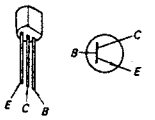
Q103, 105–110
Q115–118, 120
Q203, 205–210
Q215–218, 220
Q303, 403
Q501–503,
Q508–510,
Q513, 514, 516
: 2SC634A



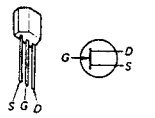
Q113, 114, 213
Q214, 504, 511
: 2SA678



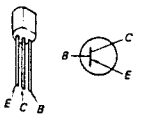
Q119, 219
Q506, 515
: 2SC1474



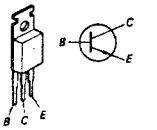
Q505: 2SK23A (2SK23A-525)



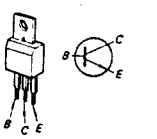
Q507: 2SA772 (2SA684)



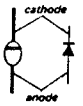
Q512: 2SC1173



Q601: 2SC1761 (2SC1760)



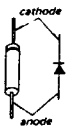
D101, 201: V06C (V09C)



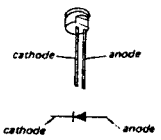
D102, 104, 106
D107, 202, 204
D206, 207, 602
: 1T22A

D103, 105, 108
D203, 205, 208
D502, 504, 505
D601
: 1S1555

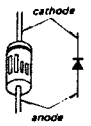
D503: RD4A
D506–509: 10E2



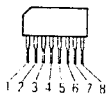
D501: SLP24B



D510: EQA01-08 (EQB01-08)

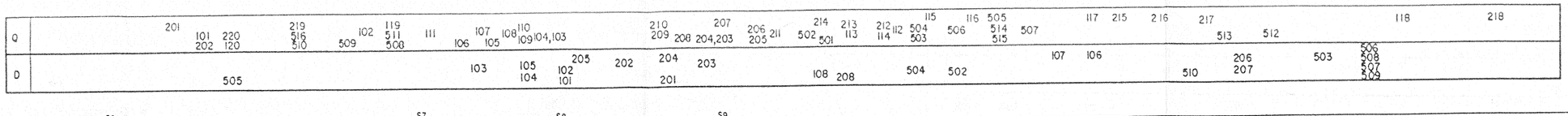


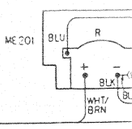
IC601: CX065

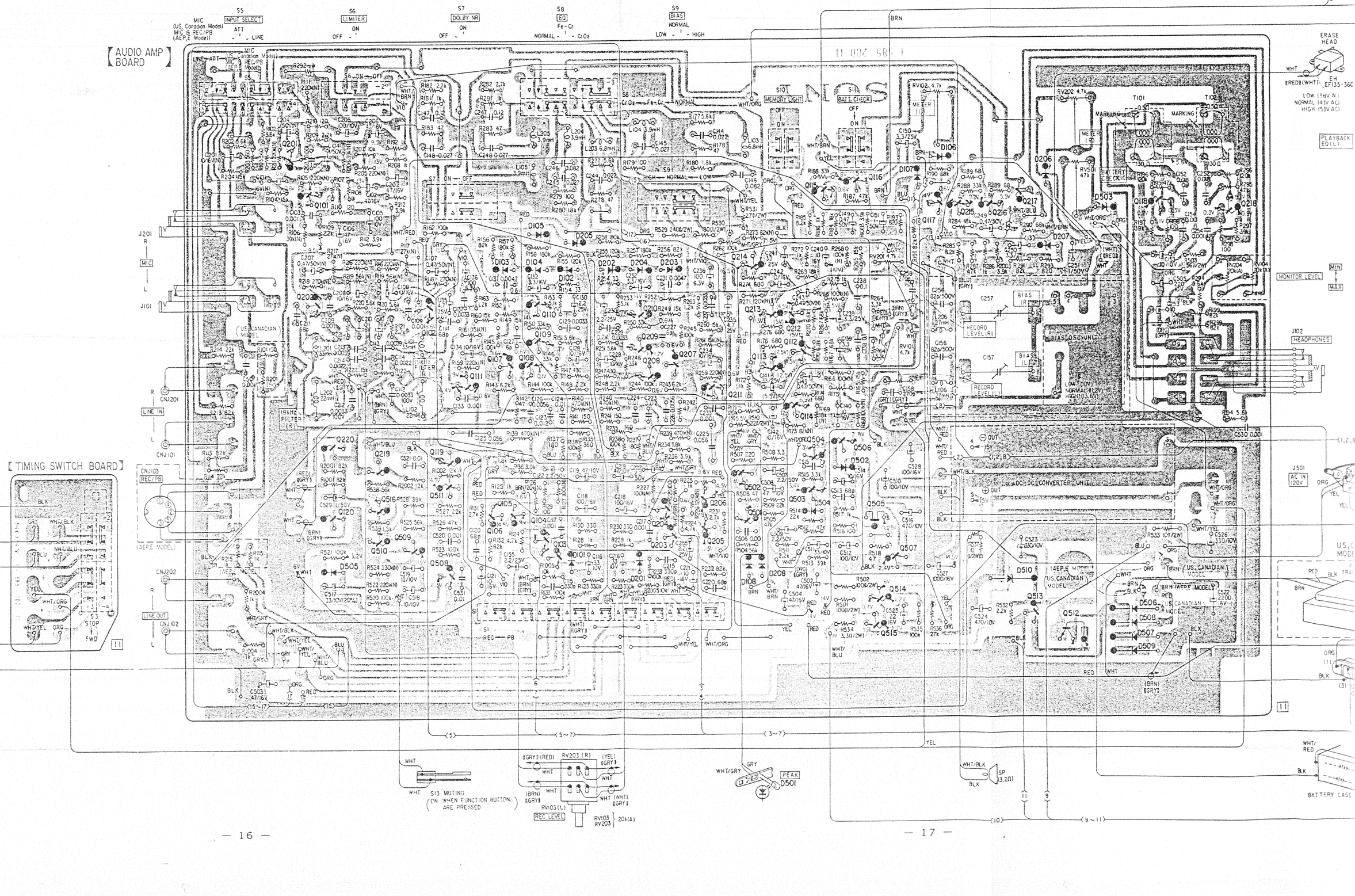


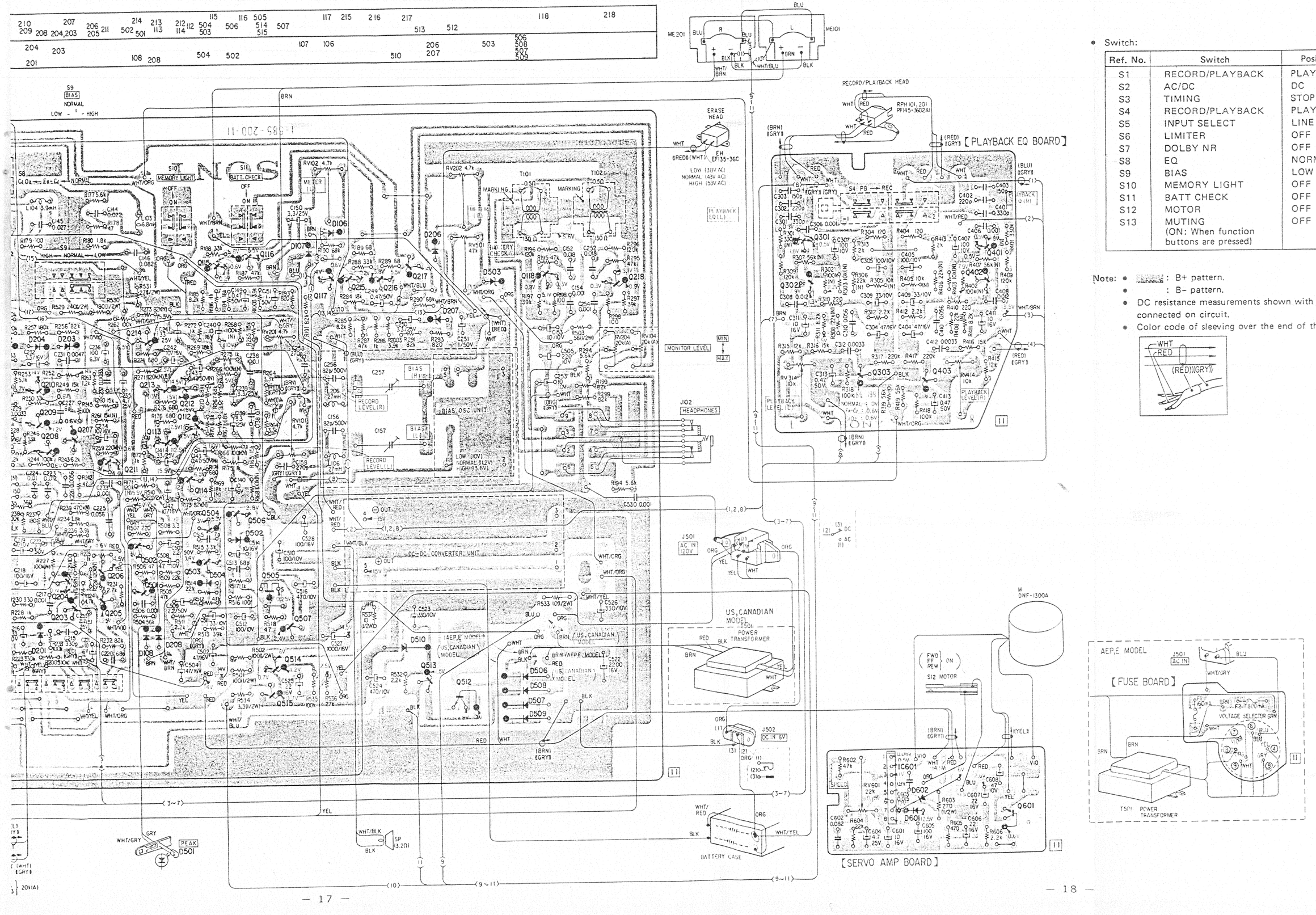
4-2. MOUNTING DIAGRAM

— Conductor Side —







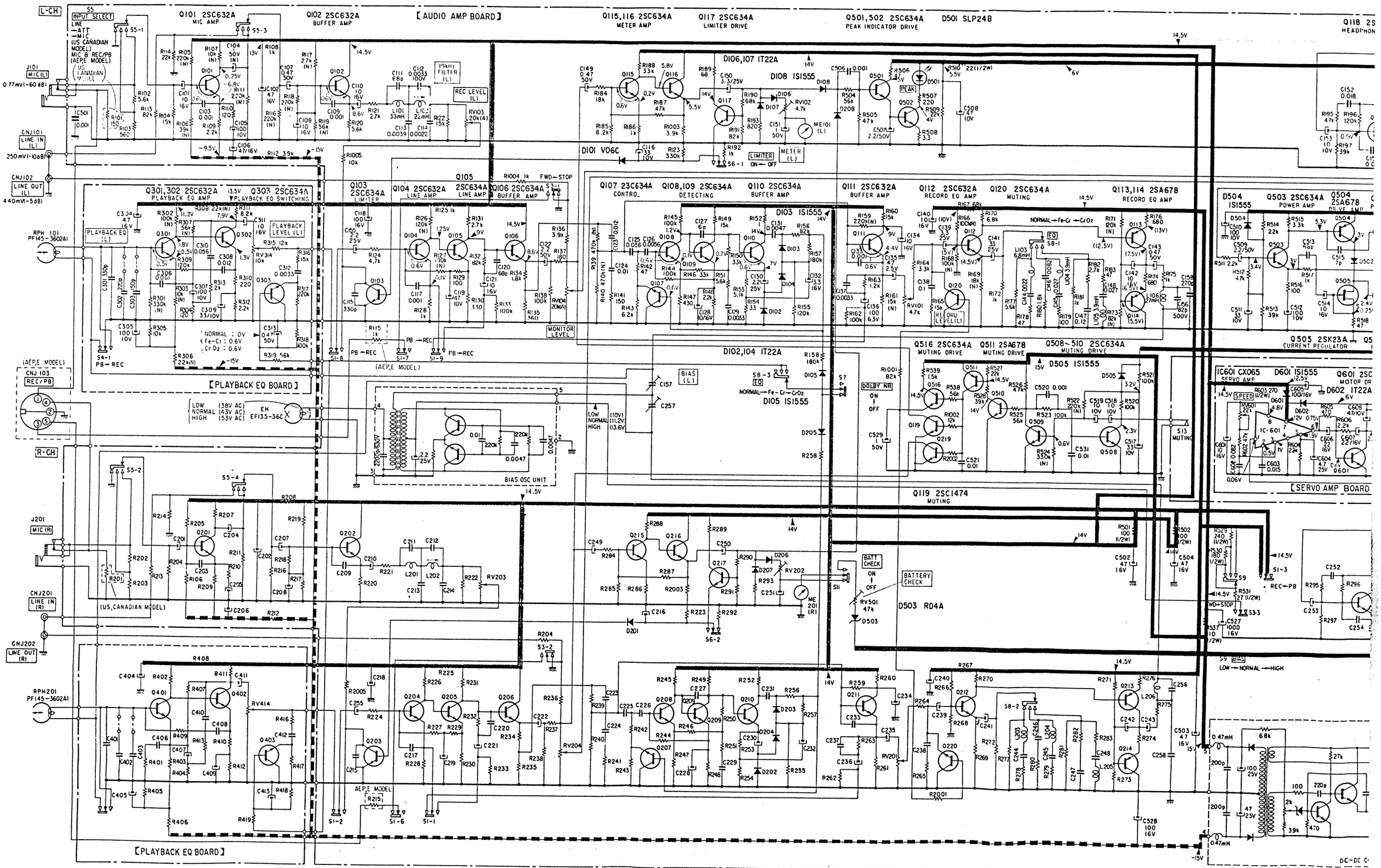


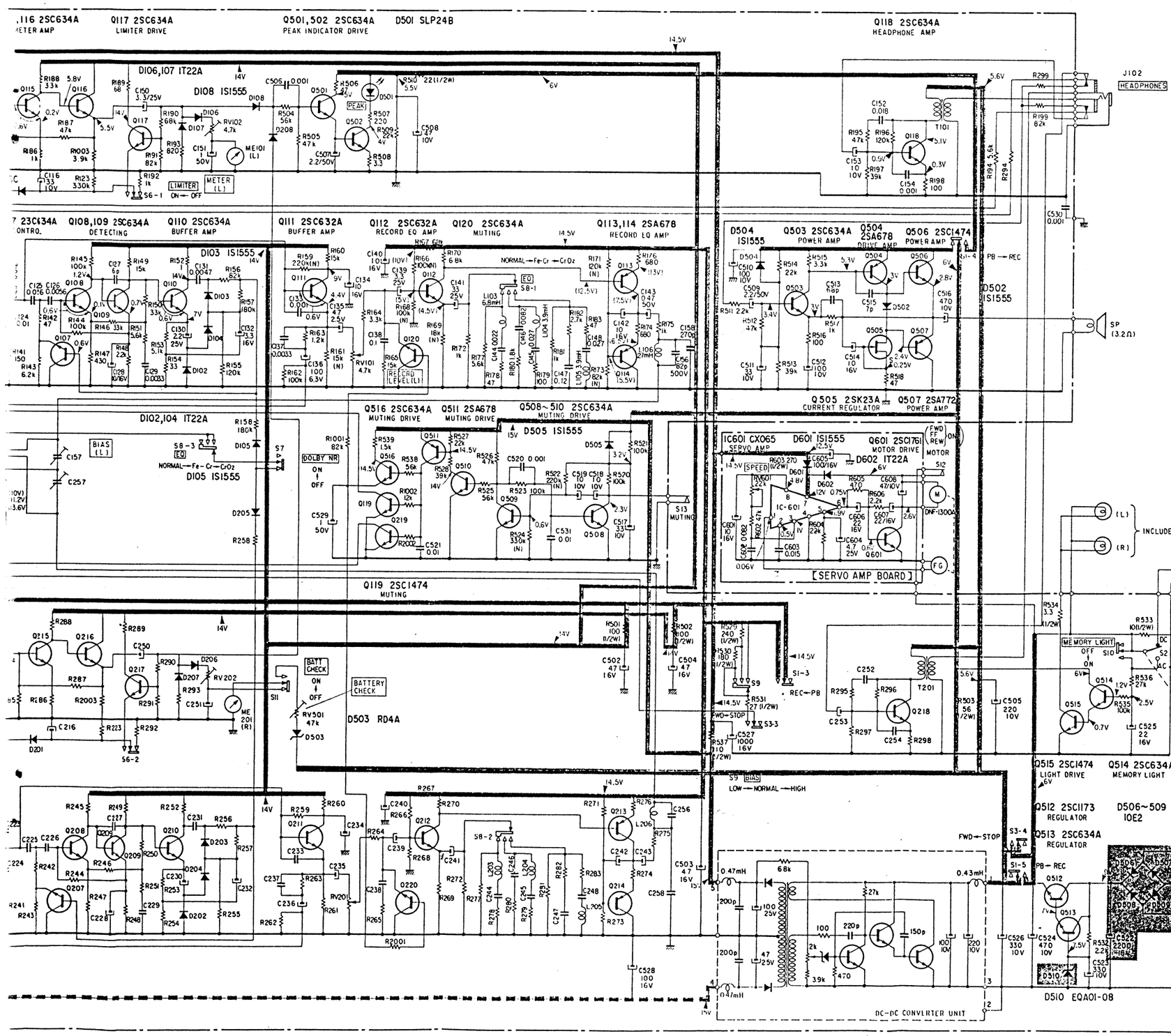
- Switch:

Ref. No.	Switch	Position
S1	RECORD/PLAYBACK	PLAYBACK
S2	AC/DC	DC
S3	TIMING	STOP
S4	RECORD/PLAYBACK	PLAYBACK
S5	INPUT SELECT	LINE
S6	LIMITER	OFF
S7	DOLBY NR	OFF
S8	EQ	NORMAL
S9	BIAS	LOW
S10	MEMORY LIGHT	OFF
S11	BATT CHECK	OFF
S12	MOTOR	OFF
S13	MUTING (ON: When function buttons are pressed)	OFF

Note:
- : B+ pattern.
- : B- pattern.
- DC resistance measurements shown with coils connected on circuit.
- Color code of sleeving over the end of the jacket.

4-3. SCHEMATIC DIAGRAM





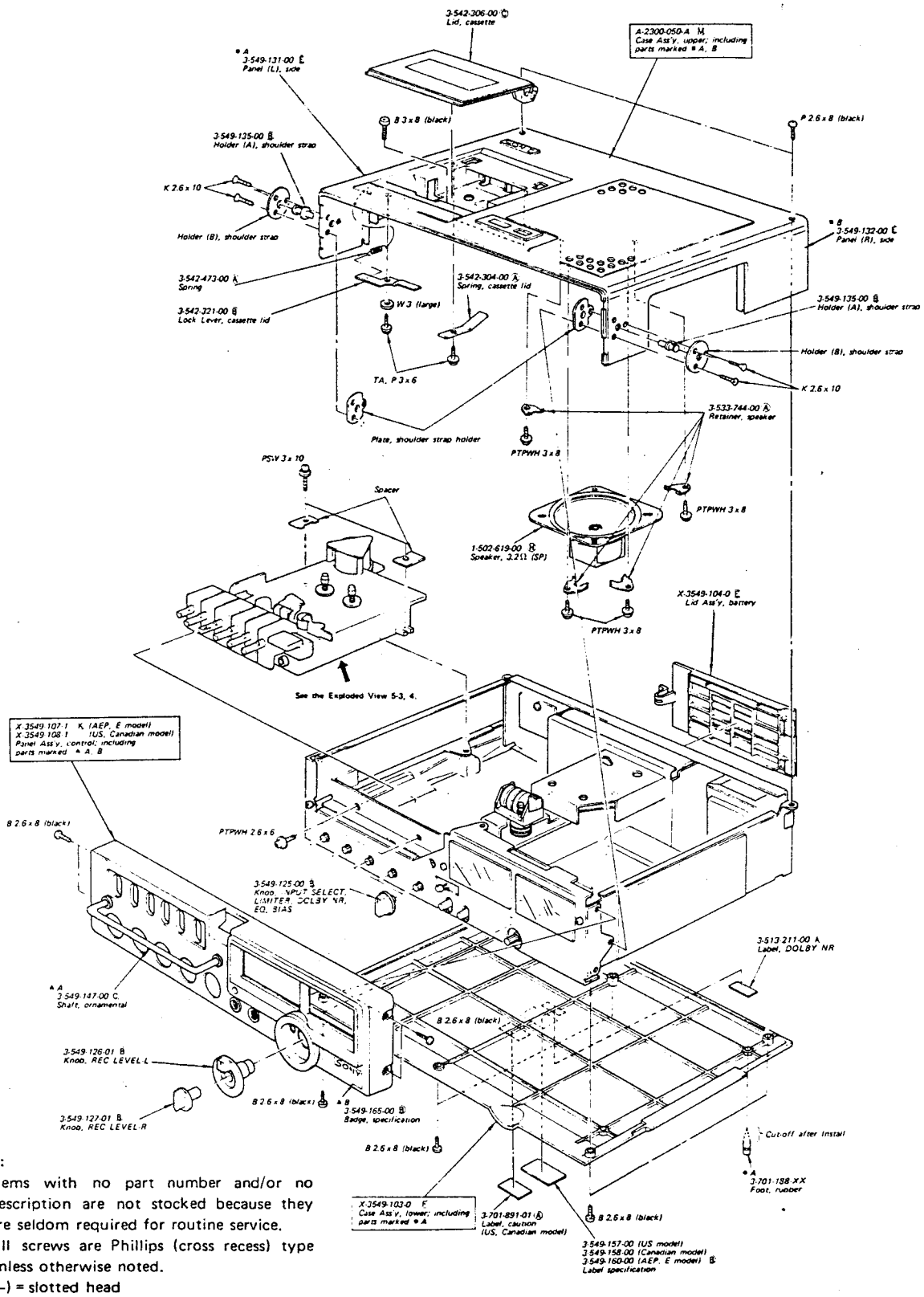
Note: The components identified by shading are critical for safety. Replace only with part number specified.

Note:

- Components for right channel have the same values as for left channel.
- All capacitors are in μF unless otherwise noted. pF = μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, ¼W unless otherwise noted. kΩ = 1,000Ω, MΩ = 1,000 kΩ
- (N) : low-noise capacitor and resistor.
- △: internal component.
- ——— : B+ bus.
- ▭ : panel designation.
- ▭ : adjustment for repair.
- ⏚ : chassis ground.
- - - - : B- bus.
- FF: fast forward
- PB: playback
- REC: record
- FWD: forward
- REW: rewind
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal conditions with a VOM (20 kΩ/V).
  ( ): RECORD
- Readings in SERVO AMP BOARD are measured in playback mode.
- AC voltage readings indicated by in the bias oscillator circuit are taken with a VTVM.
- Transistor base-emitter voltages are measured on the 2.5V range.
- Voltage variations may be noted due to normal production tolerances.

SECTION 5
EXPLODED VIEWS

5-1.

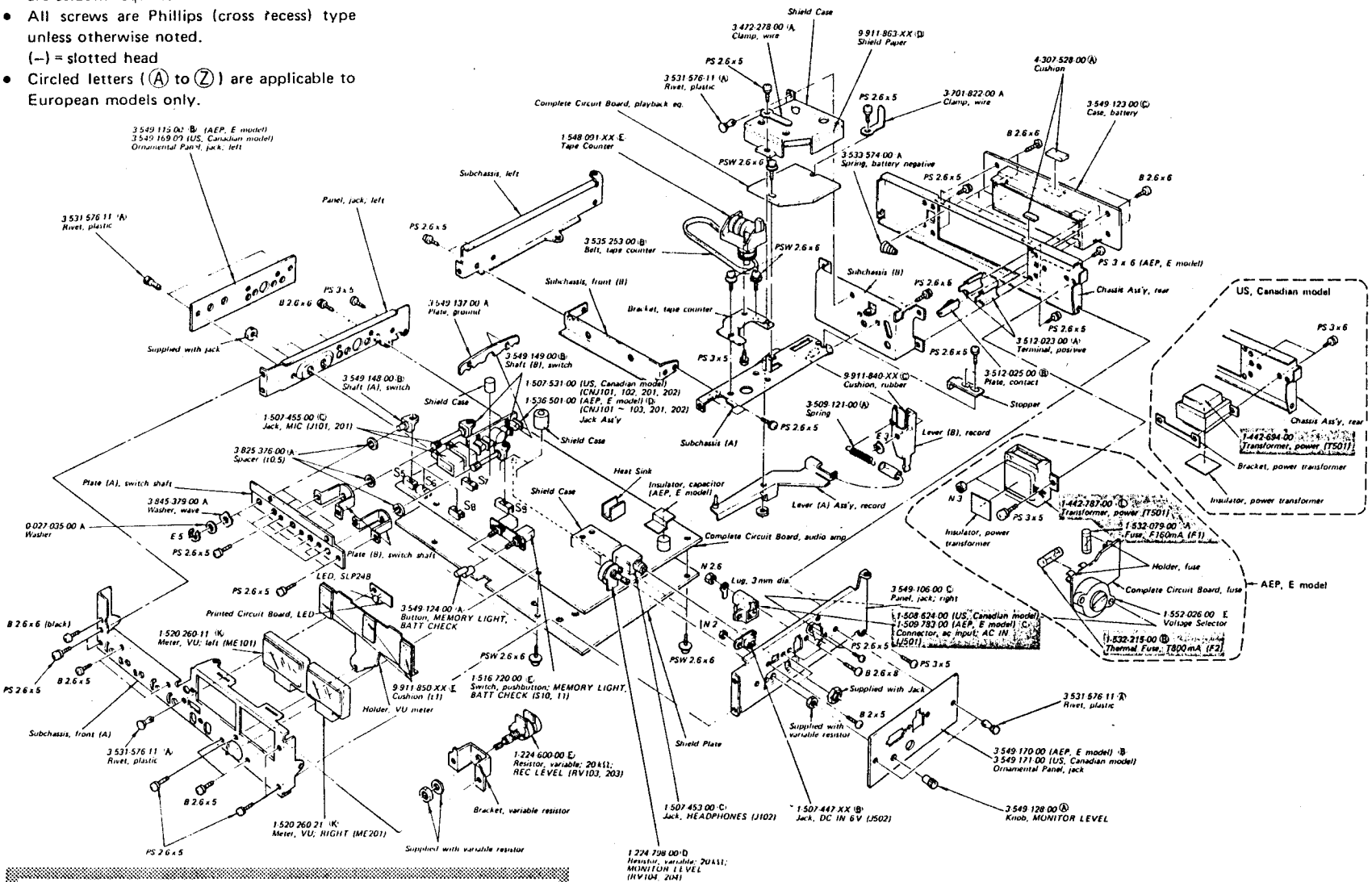

3-542-306-00 Lid, cassette
A-2300-050-A Case Ass'y, upper; including parts marked * A, B
* A 3-549-131-00 Panel (L), side
B 3 x 8 (black)
P 2.6 x 8 (black)
3-549-135-00 Holder (A), shoulder strap
K 2.6 x 10
Holder (B), shoulder strap
* B 3-549-132-00 Panel (R), side
3-542-473-00 Spring
3-542-304-00 Spring, cassette lid
W 3 (large)
3-542-321-00 Lock Lever, cassette lid
TA, P 3 x 6
3-549-135-00 Holder (A), shoulder strap
Holder (B), shoulder strap
K 2.6 x 10
3-533-744-00 Retainer, speaker
Plate, shoulder strap holder
PTPWH 3 x 8
PS-W 3 x 10
Spacer
PTPWH 3 x 8
1-502-619-00 Speaker, 2.2Ω (SP)
X-3549-104-0 Lid Ass'y, battery
PTPWH 3 x 8
See the Exploded View 5-3, 4.
X-3549-107-1 K, (AEP, E model)
X-3549-108-1 (US, Canadian model)
Panel Ass'y, control; including parts marked * A, B
B 2.6 x 8 (black)
PTPWH 2.6 x 6
3-549-125-00 Knob, INPUT SELECT, LIMITER, DOLBY NR, EQ, BIAS
3-513-211-00 Label, DOLBY NR
* A 3-549-147-00 Shaft, ornamental
B 2.6 x 8 (black)
3-549-126-01 Knob, REC LEVEL-L
B 2.6 x 8 (black)
* B 3-549-165-00 Badge, specification
3-549-127-01 Knob, REC LEVEL-R
B 2.6 x 8 (black)
Cut-off after Install
* A 3-701-138-XX Foot, rubber
X-3549-103-0 E Case Ass'y, lower; including parts marked * A
3-701-891-01 Label, caution (US, Canadian model)
B 2.6 x 8 (black)
3-549-157-00 (US model)
3-549-158-00 (Canadian model)
3-549-160-00 (AEP, E model) B Label specification

Note:

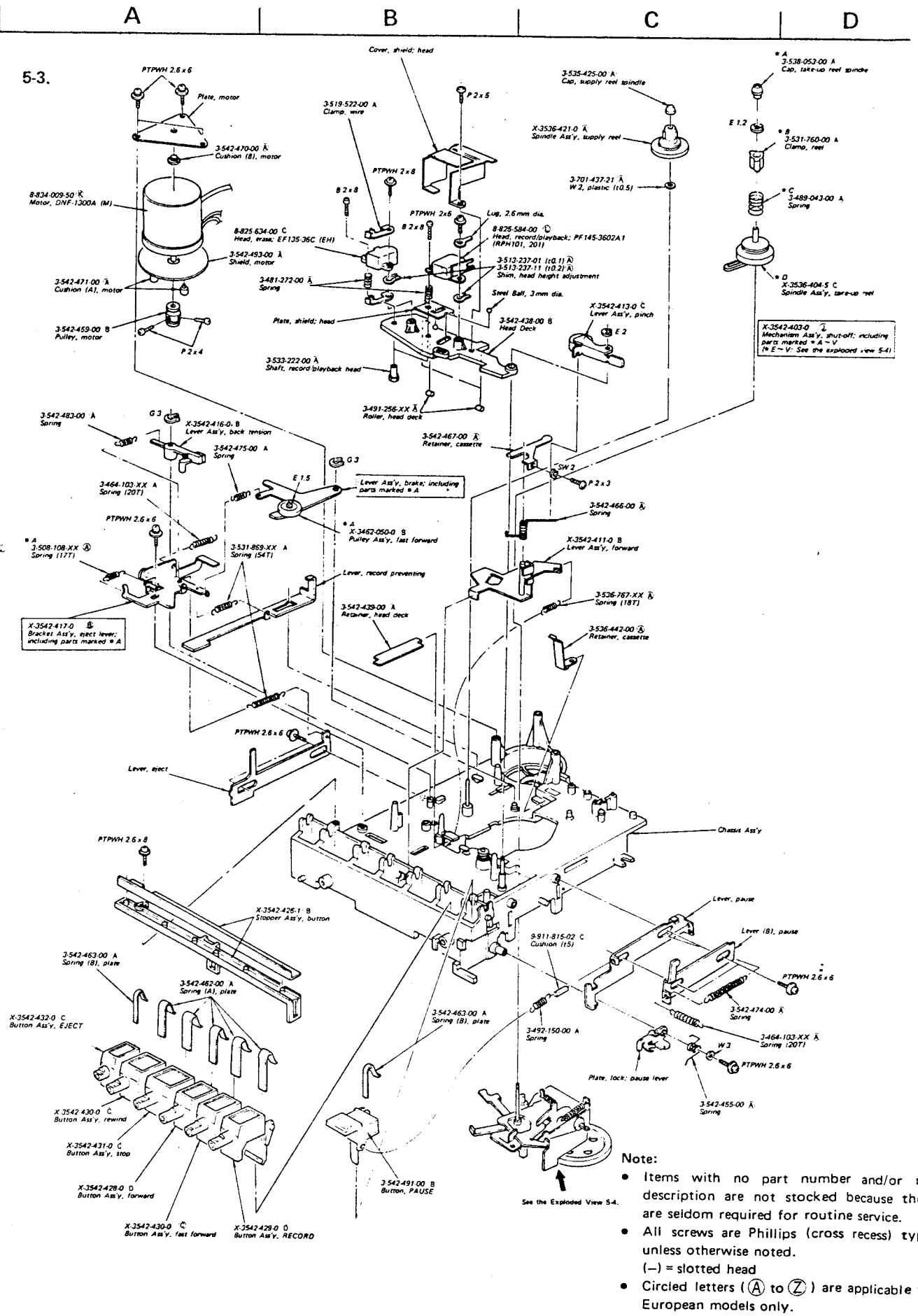
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.


Shield Case
3 472 278 00 (A) Clamp, wire
9 911 863 XX (D) Shield Paper
PS 2.6 x 5
3 531 576 11 (A) Rivet, plastic
4 307 528 00 (A) Cushion
3 701 822 00 A Clamp, wire
3 549 123 00 (C) Case, battery
Complete Circuit Board, playback eq.
1 548 091 XX (E) Tape Counter
B 2.6 x 6
PSW 2.6 x 6
3 533 574 00 A Spring, battery negative
3 549 115 02 (B) (AEP, E model)
3 549 169 00 (US, Canadian model)
Ornamental Panel, jack, left
Subchassis, left
Panel, jack, left
3 535 253 00 (B) Belt, tape counter
PS 3 x 6 (AEP, E model)
Subchassis, front (B)
Chassis Ass'y, rear
Bracket, tape counter
3 549 137 00 A Plate, ground
Supplied with jack
3 549 149 00 (B) Shaft (B), switch
3 549 148 00 (B) Shaft (A), switch
1 507 531 00 (US, Canadian model) (CNJ101, 102, 201, 202)
1 536 501 00 (AEP, E model) (D) (CNJ101 ~ 103, 201, 202) Jack Ass'y
3 512 023 00 (A) Terminal, positive
3 512 025 00 (B) Plate, contact
9 911 840 XX (C) Cushion, rubber
Stopper
3 509 121 00 (A) Spring
Lever (B), record
Subchassis (A)
Lever (A) Ass'y, record
1 507 455 00 (C) Jack, MIC (J101, 201)
3 825 376 00 (A) Spacer (t0.5)
Heat Sink
Insulator, capacitor (AEP, E model)
Plate (A), switch shaft
3 845 379 00 A Washer, wave
0 027 035 00 A Washer
Complete Circuit Board, audio amp.
Plate (B), switch shaft
LED, SLP248
Printed Circuit Board, LED
3 549 124 00 (A) Button, MEMORY LIGHT, BATT CHECK
B 2.6 x 6 (black)
1 520 260 11 (K) Meter, VU; left (ME101)
Lug, 3mm dia.
3 549 106 00 (C) Panel, jack; right
1 508 624 00 (US, Canadian model)
1 509 783 00 (AEP, E model) (C) Connector, ac input; AC IN (J501)
PSW 2.6 x 6
1 516 720 00 (E) Switch, pushbutton; MEMORY LIGHT, BATT CHECK (S10, 11)
9 911 850 XX (E) Cushion (t1)
Holder, VU meter
Subchassis, front (A)
3 531 576 11 (A) Rivet, plastic
1 224 600 00 (E) Resistor, variable; 20kΩ; REC LEVEL (RV103, 203)
Bracket, variable resistor
Supplied with variable resistor
1 520 260 21 (K) Meter, VU; RIGHT (ME201)
1 507 453 00 (C) Jack, HEADPHONES (J102)
1 507 447 XX (B) Jack, DC IN 6V (J502)
3 549 128 00 (A) Knob, MONITOR LEVEL
1 224 798 00 (D) Resistor, variable; 20kΩ; MONITOR LEVEL (RV104, 204)
Shield Plate
Supplied with variable resistor
3 549 170 00 (AEP, E model) (B)
3 549 171 00 (US, Canadian model)
Ornamental Panel, jack
US, Canadian model
Chassis Ass'y, rear
1 442 694 00 Transformer, power (T501)
Bracket, power transformer
Insulator, power transformer
AEP, E model
1 442 787 00 (C) Transformer, power (T501)
1 532 079 00 (A) Fuse, F160mA (F1)
Holder, fuse
Complete Circuit Board, fuse
1 552 026 00 (E) Voltage Selector
1 532 215 00 (B) Thermal Fuse, T800mA (F2)

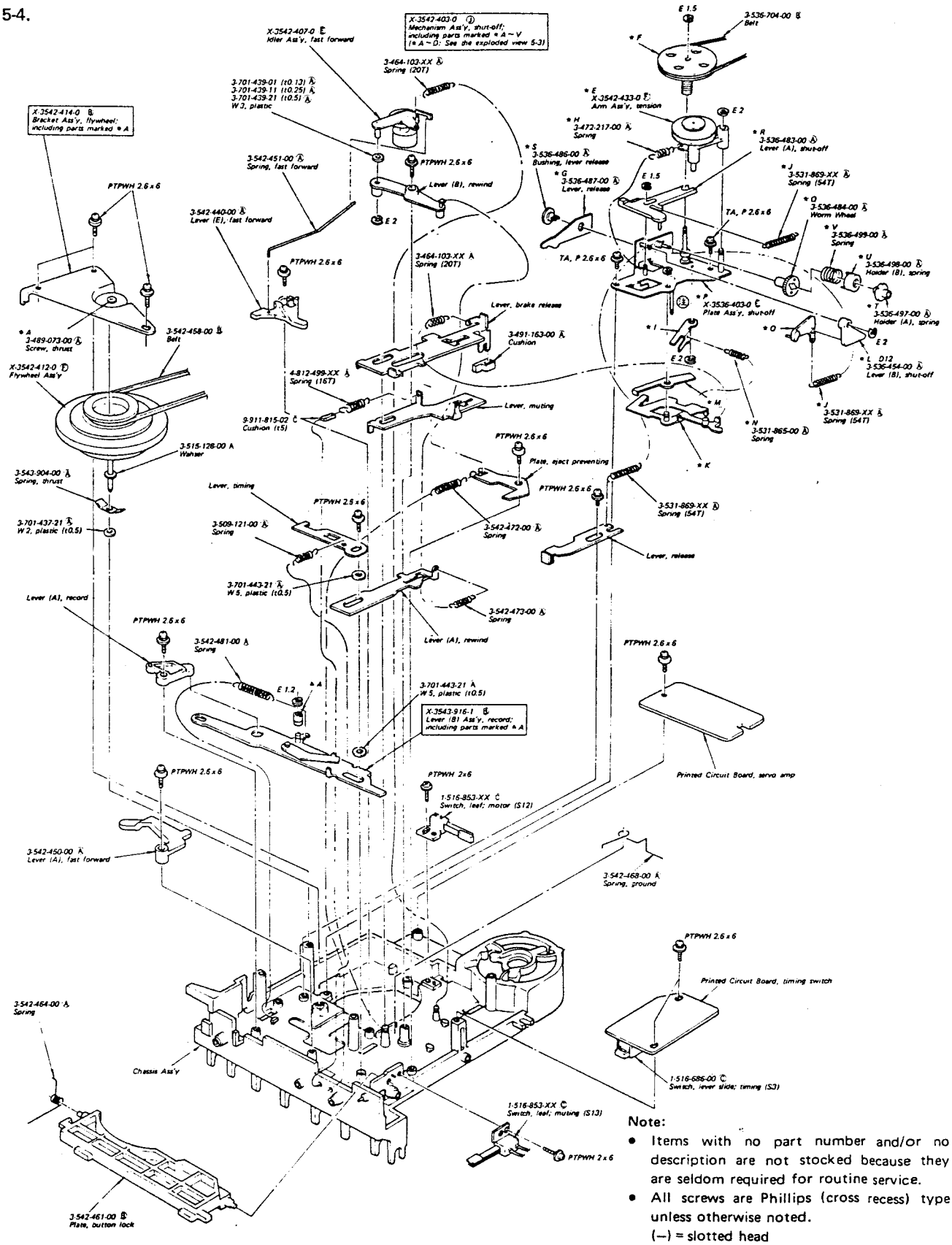
Note: The components identified by shading are critical for safety. Replace only with part number specified.



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.
- (□□T) shows the number of coils in spring.

5-4.



Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
- Circled letters (Ⓐ to Ⓩ) are applicable to European models only.
- (□□T) shows the number of coils in spring.

SECTION 6
ELECTRICAL PARTS LIST

Note: Circled letters (Ⓐ to Ⓩ) are applica to European models only.

Ref. No.	Part No.	Description
		SEMICONDUCTORS
		Transistors
Q101,201 Q102,202		Ⓑ 2SC632A
Q103,203		Ⓑ 2SC634A
Q104,204		Ⓑ 2SC632A
Q105,205 Q106,206 Q107,207 Q108~110 Q208~210		Ⓑ 2SC634A
Q111,211 Q112,212		Ⓑ 2SC632A
Q113,213 Q114,214		Ⓒ 2SA678
Q115~118 Q215~218		Ⓑ 2SC634A
Q119,219		Ⓑ 2SC1474
Q120,220		Ⓑ 2SC634A
Q301,401 Q302,402		Ⓑ 2SC632A
Q303,403 Q501~503		Ⓑ 2SC634A
Q504		Ⓒ 2SA678
Q505		Ⓔ 2SK23A-524
Q506		Ⓑ 2SC1474
⇒ Q507		Ⓒ 2SA684
Q508~510		Ⓑ 2SC634A
Q511		Ⓒ 2SA678
Q512		Ⓒ 2SC1173
Q513,514		Ⓑ 2SC634A
Q515		Ⓑ 2SC1474
⇒ Q601		Ⓒ 2SC1760
IC601		Ⓕ CX065
		Diodes
⇒ D101,201		Ⓑ V09C
D102,202		Ⓑ 1T22A
D103,203		Ⓑ 1S1555
D104,204		Ⓑ 1T22A
D105,205		Ⓑ 1S1555
D106,206 D107,207		Ⓑ 1T22A
D108,208		Ⓑ 1S1555
D501		Ⓒ SLP24B (LED)
D502		Ⓑ 1S1555
D503		Ⓑ RD4A
D504,505		Ⓑ 1S1555
D506~509		Ⓑ 10E2
⇒ D510		Ⓑ EQB01-08
D601		Ⓑ 1S1555
D602		Ⓑ 1T22A
		COILS
L101,201	1-407-879-00	Ⓑ 33 mH, microinductor
L102,202	1-407-240-00	Ⓑ 22 mH, variable inductor
L103,203	1-407-204-XX	Ⓑ 6.8 mH, microinductor
L104,204 L105,205	1-407-201-XX	Ⓑ 3.9 mH, microinductor
L106,206	1-407-211-XX	Ⓑ 27 mH, microinductor
		TRANSFORMERS
T101,201	1-427-284-00	Ⓑ Headphone
T501	1-442-694-00	Ⓛ Power (US, Canadian model)
	1-442-787-00	Ⓛ Power (AEP, E model)
		CAPACITORS

All capacitors are in μF and electrolytic unless otherwise noted.
50WV or less are not indicated except for electrolytics. pF = μμF

C101	1-121-916-11	Ⓑ	10	16V
C102	1-121-409-11	Ⓐ	47	16V
C103	1-102-074-11	Ⓐ	0.001	ceramic
C104	1-121-912-11	Ⓐ	1	50V

⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

Note: The components identified by shading are critical for safety. Replace only with part number specified.

Note: Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	Part No.		Description	
C105	1-121-414-11	Ⓐ 100	10V	
C106	1-121-409-11	Ⓐ 47	16V	
C107	1-121-911-11	Ⓑ 0.47	50V	
C108	1-121-651-11	Ⓐ 10	16V	
C109	1-102-074-11	Ⓐ 0.001		ceramic
C110	1-131-199-11	Ⓑ 10	16V	tantalum
C111	1-101-888-11	Ⓐ 68p		ceramic
C112	1-129-794-11	Ⓑ 0.0033	100V	polyethylene
C113	1-108-569-12	Ⓑ 0.0039		mylar
C114	1-108-563-12	Ⓑ 0.0022		
C115	1-102-820-11	Ⓐ 330p		ceramic
C116	1-121-402-11	Ⓐ 33	10V	
C117	1-102-074-11	Ⓐ 0.001		ceramic
C118	1-121-415-11	Ⓐ 100	16V	
C119	1-121-352-11	Ⓐ 47	10V	
C120	1-101-888-11	Ⓐ 68p		ceramic
C121	1-121-651-11	Ⓐ 10	16V	
C122	1-121-450-11	Ⓘ 2.2	50V	
C123	1-108-581-12	Ⓑ 0.012		mylar
C124	1-108-579-12	Ⓐ 0.01		mylar
C125	1-108-597-12	Ⓑ 0.056		mylar
C126	1-108-573-12	Ⓐ 0.0056		mylar
C127	1-107-103-11	Ⓐ 6p		silvered mica
C128	1-121-651-11	Ⓐ 10	16V	
C129	1-108-567-12	Ⓐ 0.0033		mylar
C130	1-131-205-11	Ⓑ 2.2	25V	tantalum
C131	1-108-234-12	Ⓐ 0.0047		mylar
C132	1-131-197-11	Ⓑ 3.3	16V	tantalum
C133	1-102-074-11	Ⓐ 0.001		ceramic
C134	1-121-651-11	Ⓐ 10	16V	
C135	1-121-395-11	Ⓐ 4.7	25V	
C136	1-121-413-11	Ⓐ 100	6.3V	
C137	1-108-232-12	Ⓐ 0.0033		mylar
C138	1-108-251-12	Ⓐ 0.1		mylar
C139	1-121-392-11	Ⓐ 3.3	25V	
C140	1-121-651-11	Ⓐ 10	16V	
C141	1-121-404-11	Ⓐ 3.3	25V	
C142	1-121-651-11	Ⓐ 10	16V	
C143	1-121-911-11	Ⓑ 0.47	50V	
C144	1-108-587-12	Ⓑ 0.022		mylar
C145	1-108-589-12	Ⓑ 0.027		mylar
C146	1-108-601-12	Ⓑ 0.082		mylar
C147	1-108-605-12	Ⓑ 0.12		mylar
C148	1-108-589-12	Ⓑ 0.027		mylar
C149	1-121-726-11	Ⓐ 0.47	50V	
C150	1-121-392-11	Ⓐ 3.3	25V	
C151	1-121-391-11	Ⓐ 1	50V	
C152	1-108-358-12	Ⓐ 0.018		mylar
C153	1-121-469-11	Ⓐ 10	10V	
C154	1-102-074-11	Ⓐ 0.001		ceramic
C155	1-131-205-11	Ⓑ 2.2	25V	tantalum
C156	1-107-037-11	Ⓐ 82p	500V	silvered mica
C157	1-141-069-XX	Ⓑ Trimmer		
C158	1-102-111-11	Ⓐ 270p		ceramic
C201	1-121-916-11	Ⓑ 10	16V	
C202	1-121-409-11	Ⓐ 47	16V	
C203	1-102-074-11	Ⓐ 0.001		ceramic
C204	1-121-912-11	Ⓐ 1	50V	
C205	1-121-414-11	Ⓐ 100	10V	
C206	1-121-409-11	Ⓐ 47	16V	
C207	1-121-911-11	Ⓑ 0.47	50V	
C208	1-121-651-11	Ⓐ 10	16V	
C209	1-102-074-11	Ⓐ 0.001		ceramic
C210	1-131-199-11	Ⓑ 10	16V	tantalum
C211	1-101-888-11	Ⓐ 68p		ceramic
C212	1-129-794-11	Ⓑ 0.0033	100V	polyethylene
C213	1-108-569-12	Ⓑ 0.0039		mylar
C214	1-108-563-12	Ⓑ 0.0022		mylar
C215	1-102-820-11	Ⓐ 330p		ceramic
C216	1-121-402-11	Ⓐ 33	10V	
C217	1-102-074-11	Ⓐ 0.001		ceramic
C218	1-121-415-11	Ⓐ 100	16V	
C219	1-121-352-11	Ⓘ 47	10V	
C220	1-101-888-11	Ⓐ 68p		ceramic
C221	1-121-651-11	Ⓐ 10	16V	
C222	1-121-450-11	Ⓘ 2.2	50V	
C223	1-108-581-12	Ⓑ 0.012		mylar
C224	1-108-579-12	Ⓐ 0.01		mylar
C225	1-108-597-12	Ⓑ 0.056		mylar
C226	1-108-573-12	Ⓐ 0.0056		mylar
C227	1-107-103-11	Ⓐ 6p		silvered mica

Note: Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	Part No.		Description	
C228	1-121-651-11	Ⓐ 10	16V	
C229	1-108-567-12	Ⓐ 0.0033		mylar
C230	1-131-205-11	Ⓑ 2.2	25V	tantalum
C231	1-108-234-12	Ⓐ 0.0047		mylar
C232	1-131-197-11	Ⓑ 3.3	16V	tantalum
C233	1-102-074-11	Ⓐ 0.001		ceramic
C234	1-121-651-11	Ⓐ 10	16V	
C235	1-121-395-11	Ⓐ 4.7	25V	
C236	1-121-413-11	Ⓐ 100	6.3V	
C237	1-108-232-12	Ⓐ 0.0033		mylar
C238	1-108-251-12	Ⓑ 0.1		mylar
C239	1-121-392-11	Ⓐ 3.3	25V	
C240	1-121-651-11	Ⓐ 10	16V	
C241	1-121-404-11	Ⓐ 33	25V	
C242	1-121-651-11	Ⓐ 10	16V	
C243	1-121-911-11	Ⓑ 0.47	50V	
C244	1-108-587-12	Ⓑ 0.022		mylar
C245	1-108-589-12	Ⓑ 0.027		mylar
C246	1-108-601-12	Ⓑ 0.082		mylar
C247	1-108-605-12	Ⓑ 0.12		mylar
C248	1-108-589-12	Ⓑ 0.027		mylar
C249	1-121-726-11	Ⓐ 0.47	50V	
C250	1-121-392-11	Ⓐ 3.3	25V	
C251	1-121-391-11	Ⓐ 1	50V	
C252	1-108-358-12	Ⓐ 0.018		mylar
C253	1-121-469-11	Ⓐ 10	10V	
C254	1-102-074-11	Ⓐ 0.001		ceramic
C255	1-131-205-11	Ⓑ 2.2	25V	tantalum
C256	1-107-037-11	Ⓐ 82p	500V	silvered mica
C257	1-141-069-XX	Ⓑ Trimmer		
C258	1-102-111-11	Ⓐ 270p		ceramic
C301	1-102-112-11	Ⓐ 330p		ceramic
C302	1-102-110-11	Ⓐ 220p		ceramic
C303	1-102-108-11	Ⓐ 150p		ceramic
C304	1-121-409-11	Ⓐ 47	16V	
C305	1-121-414-11	Ⓐ 100	10V	
C306	1-102-074-11	Ⓐ 0.001		ceramic
C307	1-121-414-11	Ⓐ 100	10V	
C308	1-108-357-12	Ⓐ 0.012		mylar
C309	1-121-402-11	Ⓐ 33	10V	
C310	1-108-597-12	Ⓑ 0.056		mylar
C311	1-131-199-11	Ⓑ 10	16V	tantalum
C312	1-108-232-12	Ⓐ 0.0033		mylar
C313	1-121-726-11	Ⓐ 0.47	50V	
C401	1-102-112-11	Ⓐ 330p		ceramic
C402	1-102-110-11	Ⓐ 220p		ceramic
C403	1-102-108-11	Ⓐ 150p		ceramic
C404	1-121-409-11	Ⓐ 47	16V	
C405	1-121-414-11	Ⓐ 100	10V	
C406	1-102-074-11	Ⓐ 0.001		ceramic
C407	1-121-414-11	Ⓐ 100	10V	
C408	1-108-357-12	Ⓐ 0.012		mylar
C409	1-121-402-11	Ⓐ 33	10V	
C410	1-108-597-12	Ⓑ 0.056		mylar
C411	1-131-199-11	Ⓑ 10	16V	tantalum
C412	1-108-232-12	Ⓐ 0.0033		mylar
C413	1-121-726-11	Ⓐ 0.47	50V	
C501	1-102-074-11	Ⓐ 0.001		ceramic
C502~504	1-121-409-11	Ⓐ 47	16V	
C505	1-121-420-11	Ⓐ 220	10V	
C506	1-102-074-11	Ⓐ 0.001		ceramic
C507	1-121-450-11	Ⓘ 2.2	50V	
C508	1-121-352-11	Ⓘ 47	10V	
C509	1-121-450-11	Ⓘ 2.2	50V	
C510	1-121-414-11	Ⓐ 100	10V	
C511	1-121-402-11	Ⓐ 33	10V	
C512	1-121-414-11	Ⓐ 100	10V	
C513	1-107-081-11	Ⓐ 68p		silvered mica
C514	1-121-651-11	Ⓐ 10	16V	
C515	1-107-104-11	Ⓐ 7p		silvered mica
C516	1-121-425-11	Ⓑ 470	10V	
C517	1-121-974-11	Ⓑ 33	10V	
C518,519	1-121-469-11	Ⓐ 10	10V	
C520	1-102-074-11	Ⓐ 0.001		ceramic
C521	1-108-239-12	Ⓐ 0.01		mylar
C522	1-121-660-11	Ⓑ 2200	16V	
C523	1-121-805-11	Ⓑ 330	10V	
C524	1-121-425-11	Ⓑ 470	10V	
C525	1-121-479-11	Ⓐ 22	16V	
C526	1-121-805-11	Ⓑ 330	10V	
C527	1-121-245-11	Ⓑ 1000	16V	

Note: The components identified by shading are critical for safety. Replace only with part number specified.

Ref. No.	Part No.		Description	
C528	1-121-415-11	Ⓐ 100	16V	
C529	1-121-391-11	Ⓐ 1	50V	
C530	1-102-074-11	Ⓐ 0.001		ceramic
C531	1-108-239-12	Ⓐ 0.01		mylar
C601	1-121-651-11	Ⓐ 10	16V	
C602	1-108-550-12	Ⓑ 0.082		mylar
C603	1-108-583-12	Ⓑ 0.015		mylar
C604	1-121-961-11	Ⓐ 4.7	25V	
C605	1-121-415-11	Ⓐ 100	16V	
C606,607	1-121-990-11	Ⓐ 22	16V	
C608	1-121-352-11	Ⓘ 47	10V	

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted.
Check schematic diagram for values.

R501,502	1-202-549-11	Ⓐ 100	½W	composition
R503	1-202-543-11	Ⓐ 56	½W	composition
R510	1-202-533-11	Ⓐ 22	½W	composition
R529	1-202-558-11	Ⓐ 240	½W	composition
R530	1-202-555-11	Ⓐ 180	½W	composition
R531	1-202-535-11	Ⓐ 27	½W	composition
R533	1-202-525-11	Ⓐ 10	½W	composition
R534	1-202-513-11	Ⓐ 3.3	½W	composition
R537	1-202-525-11	Ⓐ 10	½W	composition

RV101,201 RV102,202	1-224-644-XX	Ⓑ 4.7 kΩ, adjustable
RV103,203	1-224-600-00	Ⓔ 20 kΩ, variable; REC LEVEL
RV104,204	1-224-798-00	Ⓓ 20 kΩ, variable; MONITOR LEVEL
RV314,414	1-224-645-XX	Ⓑ 10 kΩ, adjustable
RV501	1-224-647-XX	Ⓑ 47 kΩ, adjustable
RV601	1-224-646-XX	Ⓑ 22 kΩ, adjustable

SWITCHES

S1	1-514-976-XX	Ⓔ Slide, record/playback

Note: Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

Ref. No.	Part No.	Description
S3,4	1-516-686-00	Ⓒ Lever Slide, timing; record/playback
S5	1-516-963-00	Ⓒ Lever Slide, INPUT SELECT
S6,7	1-516-961-00	Ⓑ Lever Slide, LIMITER, DOLBY NR
S8	1-516-963-00	Ⓒ Lever Slide, EQ
S9	1-516-995-00	Ⓒ Lever Slide, BIAS
S10,11	1-516-720-00	Ⓔ Pushbutton, MEMORY LIGHT, BATT CHECK
S12,13	1-516-853-XX	Ⓒ Leaf, motor; muting

JACKS & CONNECTORS

J101,201	1-507-455-00	Ⓒ Jack, MIC
J102	1-507-453-00	Ⓒ Jack, HEADPHONES
J501	1-508-624-00	Ⓒ Connector, ac input; AC IN 120V (US, Canadian model)
	1-509-783-00	Ⓒ Connector, ac input; AC IN (AEP, E model)
J502	1-507-447-XX	Ⓑ Jack, DC IN 6V
CNJ101,201 CNJ102,202 CNJ103	1-536-501-00	Ⓓ Jack Ass'y, LINE IN, LINE OUT, REC/PB (AEP, E model)
CNJ101,201 CNJ102,202	1-507-531-00	Ⓒ Jack Ass'y, LINE IN, LINE OUT (US, Canadian model)

MISCELLANEOUS

EH	8-825-634-00	Ⓒ Head, erase; EF135-36C
F1	1-532-079-00	Ⓐ Fuse, F160mA (AEP, E model)
F2	1-532-215-00	Ⓑ Thermal Fuse, T800mA (AEP, E model)
M	8-834-009-50	Ⓚ Motor, DNF-1300A
ME101	1-520-260-11	Ⓚ Meter, VU; LEFT
ME201	1-520-260-21	Ⓚ Meter, VU; RIGHT
RPH101,201	8-825-584-00	Ⓛ Head, record/playback; PF145-3602A1
SP	1-502-619-00	Ⓗ Speaker, 3.2Ω
	1-464-059-00	Ⓖ Unit, bias osc
	1-464-063-00	Ⓚ Unit, dc-dc converter
	1-552-026-00	Ⓔ Voltage Selector (AEP, E model)

Note: The components identified by shading are critical for safety. Replace only with part number specified.

Note: Circled letters (Ⓐ to Ⓩ) are applicable to European models only.

ACCESSORIES & PACKING MATERIALS

Part No.	*Description*
X-3701-018-3	Ⓐ Tips Ass'y, head cleaning (Canadian, AEP, E model)
1-528-022-00	Ⓒ Battery, size "D" (US model)
1-534-049-31	Ⓓ Cord, connection; RK-74
1-534-840-XX	Ⓔ Cord, power; DK-38 (AEP, E model)
1-534-867-00	Ⓒ Cord, power; DK-35 (US model)
1-551-002-XX	Ⓓ Cord, power (Canadian model)
3-533-950-00	Ⓘ Strap, shoulder
3-533-962-00	Ⓒ Bag, plastic; set
3-549-154-00	Ⓑ Case, accessory
3-549-155-00	Ⓑ Cushion, upper
3-549-156-00	Ⓑ Cushion, lower
3-549-162-00	Ⓔ Carton (Canadian, AEP, E model)
3-549-163-00	Ⓔ Carton (US model)
3-701-684-11	Ⓐ Card, voltage (AEP, E model)
3-770-080-11	Ⓔ Manual, instruction (Canadian, AEP, E model)
3-770-080-21	Ⓔ Manual, instruction (US model)
3-793-044-21	Ⓐ Carton, important (US model)
3-793-749-11	Ⓑ Card, DOLBY cassette (AEP, E model)
3-793-828-11	Ⓐ Card, caution; cassette

Note: The components identified by shading are critical for safety. Replace only with part number specified.

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STEREO CASSETTE-CORDER

TC-158SD

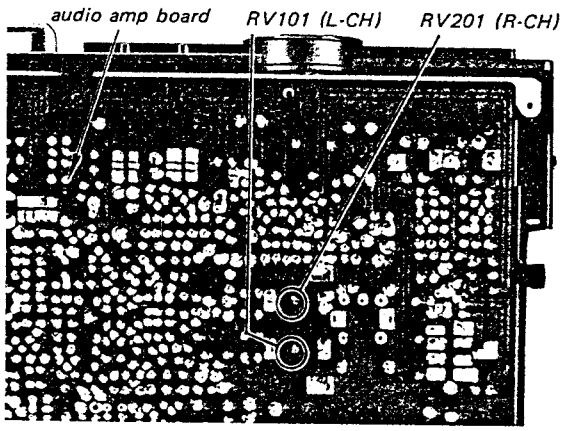
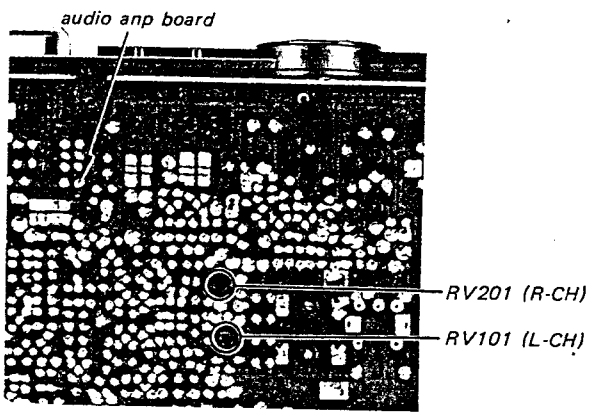
US Model
Canadian Model
AEP Model
E Model

No. 1
December, 1976

CORRECTION

Correct the service manual as shown below.

Page 13 **Record Level Adjustment**

Incorrect	Correct
Adjustment Location:  	Adjustment Location: 

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